REMARKS

Claims 9-28 are currently pending in the present application. Claims 19-28 stand withdrawn from consideration by the Examiner as being directed to a non-elected invention.

Applicants wish to extend their appreciation to Examiner Nutter for the helpful and courteous discussion held on January 7, 2009, with their undersigned Representative. During the meeting, the prior art and double patenting rejections were discussed, along with potential amendments, arguments and/or evidence for overcoming the rejections. The content of this discussion is believed to be reflected in the remarks set forth herein.

The rejections of claims 9-18 under 35 U.S.C. §§ 102(b) and/or 103(a) as being anticipated and/or obvious over each of Abe (U.S. Patent 5,218,048) and Iwata (U.S. Patent 5,430,080) are respectfully traversed.

Claim 9 recites a thermoplastic resin composition comprising: 30-98 wt. % of a thermoplastic resin (1); and 2-70 wt. % of a higher α-olefin polymer (3) comprising $\geq$ 50 mol % of an α-olefin having 10 or more carbon atoms, wherein the higher α-olefin polymer (3) has a *stereoregularity index M2 of* $\geq$ *50 mol %* and a *single melting point* (T_m) *of 0°C to 100°C.*

Abe and Iwata, when considered alone or in combination, fail to disclose or suggest that the α-olefin polymers described therein have a stereoregularity index M2 of $\geq$ 50 mol % and a single melting point (T_m) of 0°C to 100°C.

Applicants have discovered that the claimed higher α-olefin polymer having a stereoregularity index M2 of $\geq$ 50 mol % and a single melting point (T_m) of 0°C to 100°C may be produced with a polymerization metallocene catalyst represented by the general formulae (I) and (II) (See e.g., page 6, lines 8-13 and 18, page 16, lines 1-11 and 16, page 20, lines 21-25, page 21, line 1, claims 16 and 17).

In contrast, Abe and Iwata fail to disclose or suggest that the α-olefin polymers described therein are produced with the polymerization metallocene catalyst represented by the general formulae (I) and (II). Accordingly, there is no reasonable basis for a skilled artisan to conclude that the α-olefin polymers described in Abe and Iwata would have a stereoregularity index M2 of ≥ 50 mol % and a single melting point (T_m) of 0°C to 100°C, as claimed in claim 9.

As a result, Abe and Iwata, when considered alone or in combination, fail to anticipate or render obvious the thermoplastic resin composition of the present invention comprising the claimed higher α-olefin polymer having a stereoregularity index M2 of ≥ 50 mol % and a single melting point (T_m) of 0°C to 100°C.

Assuming *arguendo* that sufficient motivation and guidance is considered to have been provided by Abe and/or Iwata to direct a skilled artisan to incorporate into the thermoplastic resin compositions described therein the claimed higher α-olefin polymer having a stereoregularity index M2 of ≥ 50 mol % and a single melting point (T_m) of 0°C to 100°C, which is clearly not the case, such a case of obviousness is rebutted by a showing of superior properties and secondary considerations.

As discussed in the present specification, traditional thermoplastic resin compositions comprising higher α-olefin polymers polymerized using conventional Ziegler-Natta catalysts suffer from inferior properties with respect to decreased film impact resistance and reduced miscibility between the higher α-olefin polymers and the thermoplastic resins (See e.g., page 2, lines 16-25, page 3, lines 1-17, page 4, lines 4-10). Accordingly, there has been a long-felt need to provide a thermoplastic resin composition comprising a higher α-olefin polymer that exhibits increased film impact strength and improved miscibility between the higher α-olefin polymer and the thermoplastic resin. Based on the limited disclosures of Abe and Iwata, and

the traditional thermoplastic resin compositions described therein, other skilled artisans have failed to discover a solution to this long-felt need.

As shown in Tables 1 and 2 below, which compile into tabular form the comparative experimental data presented in the 37 C.F.R. § 1.132 Declaration appended herewith, Applicants have discovered that a thermoplastic resin composition comprising a higher α-olefin polymer polymerized using a metallocene catalyst and having a stereoregularity index M2 of ≥ 50 mol % and a single melting point (T_m) of 0°C to 100°C in accordance with the present invention exhibits superior properties with respect to increased film impact resistance and improved miscibility between the higher α-olefin polymer and the thermoplastic resin.

Table 1

	Higher α-Olefin Polymer	Catalyst	Stereoregularity Index M2 (mole %)	Melting Point(s) (°C)
Ex. 3	Polymer (1)	Metallocene	60.4	41.5
Ex. 4	Polymer (2)	Metallocene	50.8	40
Comp. Ex. 3	Polymer (3)	Ziegler-Natta	91.8	36.9 and 68.1
Comp. Ex. 4	Polymer (4)	Ziegler-Natta	87.2	35.1 and 66.1

The higher α-olefin polymer (1) of Example 3, which was polymerized using a metallocene catalyst, has a stereoregularity index M2 of 60.4 mole % and a single melting point (Tm) of 41.5°C in accordance with the claimed higher α-olefin polymer of the present invention. The higher α-olefin polymer (2) of Example 4, which was polymerized using a metallocene catalyst, has a stereoregularity index M2 of 50.8 mole % and a single melting point (Tm) of 40°C in accordance with the claimed higher α-olefin polymer of the present invention.

Unlike the claimed higher α-olefin polymer of the present invention, the higher α-olefin polymer (3) of Comparative Example 3, which was polymerized using a conventional Ziegler-Natta catalyst, has a stereoregularity index M2 of 91.8 mole % and two melting points (Tm) of 36.9°C and 68.1°C. Unlike the claimed higher α-olefin polymer of the present

invention, the higher α-olefin polymer (4) of Comparative Example 4, which was polymerized using a conventional Ziegler-Natta catalyst, has a stereoregularity index M2 of 87.2 mole % and two melting points (Tm) of 35.1°C and 66.1°C.

Table 2	Thermoplastic Resin		Higher α-Olefin Polymer		Miscibility	Film Impact Strength
	Type	wt. %	Type	wt. %	(R)	(kJ/M)
Ex. 3	Polypropylene	70.0	Polymer (1)	30.0	1.14	6.9
Ex. 4	Polypropylene	70.0	Polymer (2)	30.0	1.15	6.8
Comp. Ex. 3	Polypropylene	70.0	Polymer (3)	30.0	1.06	2.8
Comp. Ex. 4	Polypropylene	70.0	Polymer (4)	30.0	1.07	2.6

As shown by the comparative experimental data presented in Table 2, the thermoplastic resin compositions comprising the higher α-olefin polymer (1) of Example 3 and the higher α-olefin polymer (2) of Example 4, which were polymerized using a metallocene catalyst and have a stereoregularity index M2 and a single melting point in accordance with the claimed higher α-olefin polymer of the present invention, exhibit superior properties with respect to increased film impact resistance and improved miscibility between the higher α-olefin polymer and the thermoplastic resin, as compared to the inferior properties exhibited by the traditional thermoplastic resin compositions comprising the higher α-olefin polymer (3) of Comparative Example 3 and the higher α-olefin polymer (4) of Comparative Example 4, which were polymerized using a conventional Ziegler-Natta catalyst and have two melting points.

This evidence clearly demonstrates that a thermoplastic resin composition comprising a higher α-olefin polymer polymerized using a metallocene catalyst and having a stereoregularity index M2 and a single melting point in accordance with the claimed higher α-olefin polymer of the present invention exhibits superior properties with respect to increased film impact resistance and improved miscibility between the higher α-olefin polymer and the thermoplastic resin, as compared to the inferior properties exhibited by a

traditional thermoplastic resin composition comprising a higher α-olefin polymer polymerized using a conventional Ziegler-Natta catalyst and having two melting points.

Withdrawal of these grounds of rejection is respectfully requested.

Applicants respectfully request that the provisional obviousness-type double patenting rejection of claims 9-18 over claims 1 and 3-9 of copending application number 10/577,496 (Sera U.S. 2007/0079825) be held in abeyance until allowable subject matter in the present application is indicated.

In conclusion, Applicants submit that the present application is now in condition for allowance and notification to this effect is earnestly solicited.

Respectfully submitted,

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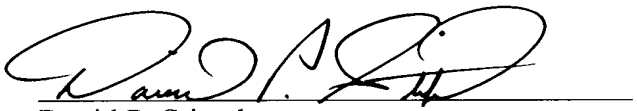

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